Hillstone Hardware Reference Guide

www.hillstonenet.com

Name and Concentration of Toxic or Hazardous Substances and Elements in Products

Component	Toxic or hazardous substances and elements					
	Lead	Mercury	Cadmium	Cr6+	PBB	PDBE
Metal parts (including fasteners)	X	O	O	O	O	O
Printed circuit board assemblies and components	X	O	O	O	O	O
Cables and cable assemblies	X	O	O	O	O	O
Plastics and Polymers	X	O	O	O	X	X
Electric components other than circuit boards	X	O	O	O	O	O

O: Indicates that this toxic or hazardous substance in the material is below the limit requirement defined in *Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products (SJ/T11363-2006)* issued by Ministry of Information Industry of PRC.

X: Indicates that this toxic or hazardous substance in the material exceeds the limit requirement specified in *Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products (SJ/T11363-2006)* issued by Ministry of Information Industry of PRC.

Note: Not all components in the table are included in one product.

This symbol indicates the environment friendly use period of all products and components. The period applies only to the normal operation conditions specified in this guide.

Preface

About This Guide

Thanks for choosing the network security products from Hillstone Networks, Inc.

This document is an installation guide for Hillstone devices to help you install the Hillstone device properly.

This guide includes the following chapters:

- Chapter 1. Introduction
- Chapter 2. Installation Preparations
- Chapter 3. Installation
- Chapter 4. Boot and Configuration
- Chapter 5. Hardware Maintenance and Replacement
- Chapter 6. Troubleshooting

Document Conventions

This guide uses the following conventions for your convenience to read and understand:

- **Warning**: Indicates improper operation that may cause serious damage to equipment or injury to operators. Thus, operators must strictly follow the operation rules.
- **Caution**: Indicates incorrect operation that may affect the normal use of the equipment. Operators should be careful.
- **Note**: Indicates information that may help readers understand the content.

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Chapter 1 Introduction

Hardware Overview

A device can be installed in a cabinet/rack or placed on a workbench.

Front Panel

Figure 1-1: Front Panel of SG-6000-E1100 (WLAN version)

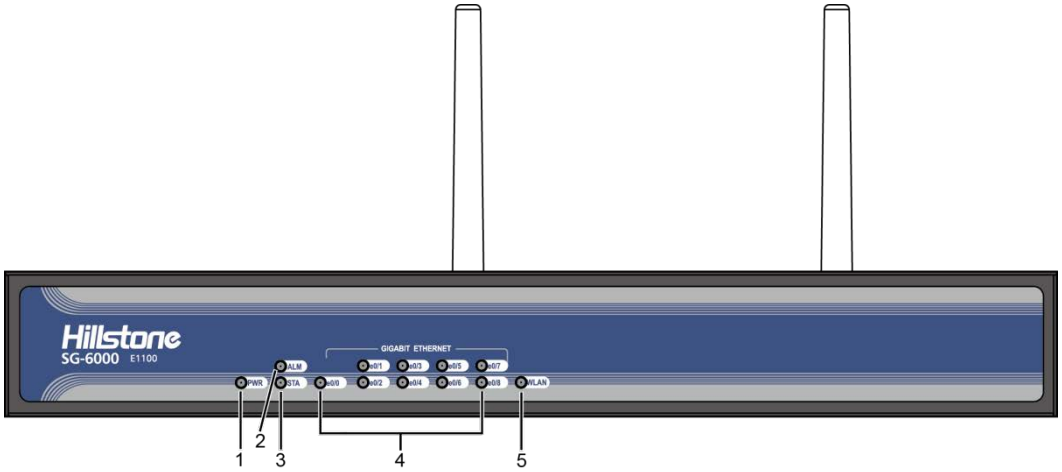


Table 1-1: Front Panel Description of SG-6000-E1100 (WLAN version)

No.	Label	No.	Label	No.	Label
1	PWR: Power LED	3	STA: Status LED	5	WLAN: WLAN LED
2	ALM: Alarm LED	4	e0/0 - e0/8: Gigabit Ethernet port status LED	-	-

Back Panel

SG-6000-E1100 (WLAN version) uses the power adapter. The back panel of SG-6000-E1100 (WLAN version) has 1 power supply socket, 1 Console port, 1 CLR button, 9 Gigabyte Ethernet ports, 1 USB port, 1 grounding screw, 1 security keyhole, and 2 SMA connectors for WLAN antennas. Figure 1-26 illustrates the back panel of this model.

Figure 1-2: SG-6000-E1100 (WLAN version) Back Panel

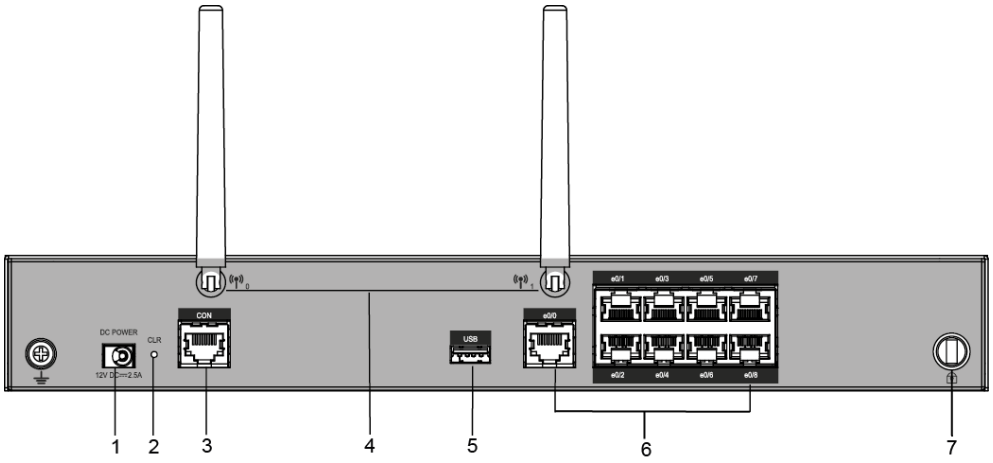


Table 1-2: Back Panel Description of SG-6000-E1100 (WLAN version)

No.	Label	No.	Label	No.	Label
1	DC POWER: DC power interface	4	SMA connectors for WLAN antennas	7	Security keyhole
2	CLR： CLR button	5	USB: USB port	-	-
3	CON: Console port	6	e0/0 - e0/8: Gigabit Ethernet port	-	-

LED Indicators

The following table describes the meanings of LED indicators on the front panels of Hillstone devices.

Table 1-3: Front Panel LED Descriptions

LED	Color/Status	Description
PWR	Green/Always on	The device power is running normally.
	Orange/Always on	The device power is running abnormally.
	Red/Always on	Power failure so the system is down.
	Off	The device is powered off.
STA	Green/Always on	The system is booting.
	Green/Blinking	The system is running normally.
	Red/Always on	The system has failed to boot or has an error.
ALM	Red/Always on	The system is sending alarm(s).
	Green/Blinking	The system is waiting.
	Orange/Blinking	The system is using a trial license.

	Orange/Always on	The trial license has expired and there is no legitimate license installed in the system.
	Off	The system is running normally.
PS0	Green/Always on	Power Supply PS0 is running normally.
	Orange/Always on	Power Supply PS0 is running normally, but its fan has failed. Change the power supply immediately.
	Off	Power Supply PS0 is powered off or has failed.
PS1	Green/Always on	Power Supply PS1 is running normally.
	Orange/Always on	Power Supply PS1 is running normally, but its fan has failed. Change the power supply immediately.
	Off	Power Supply PS0 is powered off or has failed.
HA	Green/Always on	Not using HA, this device is the master device.
	Green/Blinking	Two devices are in an HA cluster. This device is working as the master.
	Orange/Blinking	Two devices are in an HA cluster. This device is working as the slave.
	Red/Blinking	HA function has failed.
	Off	High Availability is disabled.
FAN	Green/Always on	The cooling system is running normally.
	Orange/Always on	One of the fans has failed, but the cooling system can still fully function. Change the fan tray as soon as possible.
	Red/Always on	The cooling system has a serious error or the fan tray is not fully inserted. The system will automatically shut down in 15 seconds.
VPN	Green/Always on	The VPN tunnel is connected.
	Orange/Always on	VPN is turned on but no tunnel is connected.
	Off	VPN is not in use.
SD	Green/Always on	SD card has been inserted and is in normal status.
	Green/Blinking	SD card is transmitting data.
	Off	No SD card is inserted.
LNK	Green/Always on	The link between this port and its peer device is in normal status.
	Off	The link between this port and its peer device has failed.
ACT	Orange/Blinking	The port is sending or receiving data.
	Off	No data is transmitted on this port.
e0/0-e0/8	Green/Always on	The link between this port and its peer device is in normal status.
	Green/Blinking	The port is sending or receiving data.

	Off	There is no connection between this port with the its peer device, or the link between this port and its peer device fails.
WLAN	Green/Always on	The device discovers the built-in WLAN module.
	Green/Blinking	The WLAN module is sending or receiving data.

Notes:

- The STA and ALM LEDs will both turn red when there is a boot failure caused by OS software damage. Contact your sales representative if this occurs.
- As the number and type of LED indicators may vary from different product models, please refer to the actual product.

System Parameters

The following table lists the system parameters of Hillstone devices of all models.

Table 1-4: System Parameters

Item		Description
Interface	SG-6000-E1100 (WLAN version)	9 Gigabit Ethernet ports 1 USB 2.0 Host port 1 Console port
CPU		Dedicated 64-bit multi-core processor
DDR SDRAM	SG-6000-E1100 (WLAN version)	1 GB
Flash Memory	SG-6000-E1100 (WLAN version)	512 MB
Size	SG-6000-E1100 (WLAN version)	320.0mm x 150.0mm x 44.0mm
	SG-6000-E1100 (WLAN version)	Net weight: 1.5 kg Gross weight: 2.0 kg (accessories and packages included)
	SG-6000-E1100 (WLAN version)	30 W
Input Voltage	AC	100-240V AC, 50/60Hz
	DC	-40 - -60V DC
Ambient Temperature		0℃-40℃
Relative Humidity		10%-95% (non-condensing)

Note: DDR SDRAM is the random access memory to store the communication data for the CPU. Flash Memory is used for storing the operating system firmware, configuration and application files.

Ports

This section introduces attributes of interfaces (ports) on the Hillstone devices, including console port, auxiliary port, USB port, gigabit copper port, SFP port and XFP port.

Console Port

Hillstone device provides an RS-232C asynchronous serial console port for you to configure the device. Attributes for the console (CON) port are shown in the following table.

Table 1-5: Console Port Attributes

Attribute	Description
Connector	RJ-45
Port Standard	RS-232C
Baud Rate	9600/19200/38400/57600/115200 bit/s
Services	Connect the CON port to the serial port of a PC and run a terminal emulation program on the PC to configure the device.
Transmission Medium	console cable

Auxiliary Port

Hillstone device provides an RS-232C asynchronous serial auxiliary (AUX) port. Attributes for the auxiliary port are shown in the following table.

Table 1-6: Auxiliary Port Attributes

Attribute	Description
Connector	RJ-45
Port Standard	RS-232C
Baud Rate	9600/19200/38400/57600/115200 bit/s
Services	Aux port is used for debugging.
Transmission Medium	console cable

USB Port

Hillstone device provides up to two USB host ports. Attributes for the USB port are shown in the following table.

Table 1-7: USB Port Attributes

Attribute	Description
Connector	USB Type-A interface
Port Standard	USB 2.0 host interface

Attribute	Description
Negotiation Mode	1.1/2.0 autosensing

Gigabit Copper Port

Hillstone device provides several fixed gigabit copper ports; the gigabit Combo port also supports the copper cable connection. Attributes for the gigabit copper port are shown in the following table.

Table 1-8: Gigabit Copper Port Attributes

Attribute	Description
Connector	RJ-45
Port Standard	Auto-MDIX
Frame Format	Ethernet_II Ethernet_SNAP
Negotiation Mode	10/100/1000Mbps autosensing Full/half-duplex

CLR Button

The CLR button is the pinhole of the front panel and is used to reset the device back to the factory default settings. You can restore access to the device with this button if the login password is lost.

Warning: Use this button with caution. Resetting the device will clear all existing configurations.

To restore the factory default settings, take the following steps:

1. Turn off the power of the device.
2. Press the CLR button in the pinhole and switch on the power supply simultaneously.
3. Keep pressing till the STA and ALM LEDs turn to constantly red, then stop pressing. The device begins to restore to the original factory settings.
4. The system reboots after the default settings restored.

Power Supply

Single/Dual power supply: Some product modules adopt single power supply, while others adopt dual power supplies, i.e. there are two power inputs installed in one device. Dual power supplies ensure uninterrupted power by instantly enabling the standby power supply when the active power supply fails to work.

AC/DC power supply: For some product modules (as listed below), you can choose either AC or DC power supply.

Hot-swappable: According to whether the power supply is hot-swappable or not, the power supply is classifies into three types:

- Hot-swappable power supplies are removable modules which can be replaced at any time;
- Fixed power supplies are irreplaceable and cannot be removed.
- External power adapter connects to the external AC power supply.

For instructions on how to replace power supply modules, refer to Installing and Removing the Power Supply Module.

Table 1-9: Power Supplies of All Product Models

Model	Description	AC/DC	Power Supply Type
SG-6000-E1100 (WLAN version)	Single	AC	External

Chapter 2 Installation Preparations

Introduction

To prevent personnel injury and equipment damage, please carefully read all the safety warnings and cautions in this chapter before the installation.

Hillstone products are designed for indoor use. To ensure the normal operation and to prolong the service lifetime, the installation site must meet the following requirements:

Cleanness Requirements

Table 2-1: Dust Concentration Requirements in the Equipment Room

Mechanical Active Material	Unit	Content
Dust particle	particle/m^3	≤3×104 (No visible dust on the table in 3 days)
Note: Diameter of dust particle≥5μm		

ESD Prevention

To prevent electrostatic discharge (ESD) damage, ensure that:

- The device is well grounded. The grounding screw is properly grounded.
- Take dustproof measures for the equipment room.
- Maintain proper humidity and temperature levels.
- Do not disassemble the equipment without permission from the vendor, or you may cause danger and void your warranty.

EMI Prevention

All possible electromagnetic interference (EMI) sources, external or internal, can affect the device by capacitance coupling, inductance coupling, electromagnetic radiation, and common impedance coupling (including the grounding system).

To prevent or reduce EMI:

- Take measures to protect the power system from power interference.
- It's better to separate the floor where the device is installed from the grounding device and lighting-proof device of the power source.
- Keep the device away from radio stations, radar, and other high-frequency and high-current devices.

- Use electromagnetic shielding when necessary.

Grounding Requirements

To use the device more safely:

- Ensure that the grounding screw of the chassis is well grounded via the grounding wire.
- Ensure that the grounding pin of the power plug is well grounded.

Workbench Requirements

Before the installation, ensure your workbench is properly prepared as follows:

- Make sure that you provide adequate space near the intake and exhaust vents of the device for heat dissipation.
- Make sure the rack is equipped with a good ventilation system.
- Make sure the rack is strong enough to support the weight of a fully equipped device.
- Make sure the rack is well grounded.

Other Safety Recommendations

The directions below are also recommended for you to follow:

- Keep the device far away from moist areas and heat sources.
- Wear an ESD wrist strap correctly when handling the device.
- Be careful with laser emission. Do not directly stare into apertures of fiber-optic connectors that emit laser radiation.
- Use uninterrupted power supply (UPS).

Unpacking

Verify the parts received according to your purchasing contract and packing list to ensure that you have received all the items necessary. If you have any problem, please contact your sales representative.

Installation Devices/Tools/Cables

A Hillstone device is shipped with a power cable and a console cable, and you should have the following items before the installation:

- Terminal: Configuration terminal (e.g. an ordinary PC).
- Tools: Philips screwdrivers and ESD wrist strap.

- Cables: Power cable, console cable and Ethernet cable.

Chapter 3 Installation

Before Installation

A yellow seal with dark ink characters is stuck on a mounting screw of the chassis. Keep the seal intact. The sales representative will check this seal before maintenance operation. Please get the permission of your sales representative before opening the chassis yourself. Warranty will be void if you disassemble the chassis without authorization.

Before installation, make sure that:

- You have read Chapter 2 Installation Preparations carefully.
- The requirements in Chapter 2 Installation Preparations are satisfied.

Hillstone products can be installed:

- On a workbench
- On a standard 19-inch rack

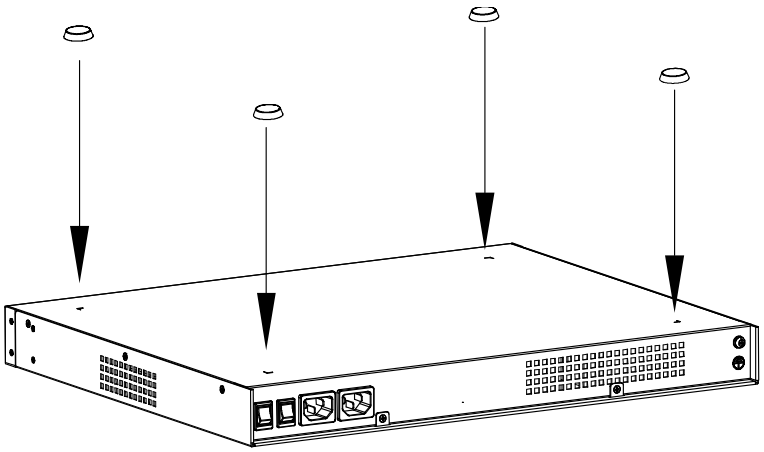
Installing the Device on a Workbench

Hillstone product can be placed on a stable and clean workbench. For skid prevention, take the following steps to fit anti-skid pads on the device before installing:

Step 1: Tear off the sticker from the rubber pad.

Step 2: Press the sticky side of the pad to the right-angle die-pressed mark on the bottom panel of the chassis. See Figure 3-1.

Figure 3-1: Installing the Rubber Pads



Check the following specifications when installing the device on a workbench:

- Make sure the workbench is stable and well grounded.
- Make sure the intake and the exhaust vents are unblocked, and keep the device well ventilated.
- Do not place any heavy object on the top of the chassis.

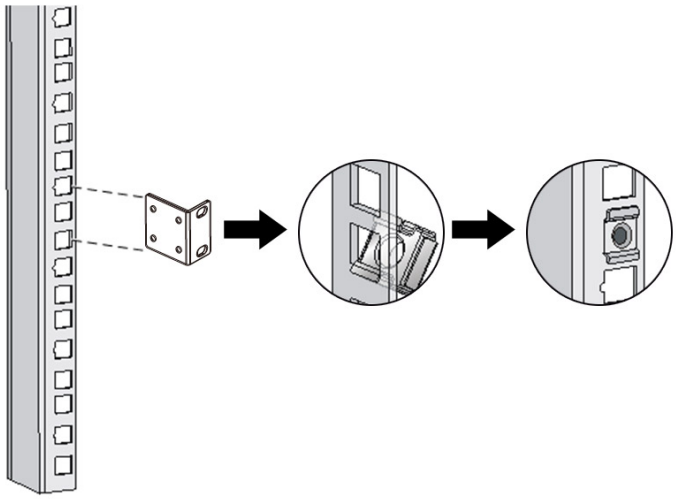
Installing the Device on a Rack

Before mounting the device on a rack, ensure that the power is off, and the rack is stable enough and well grounded. Hillstone devices are designed for a 19-inch standard rack.

To mount the chassis on a rack:

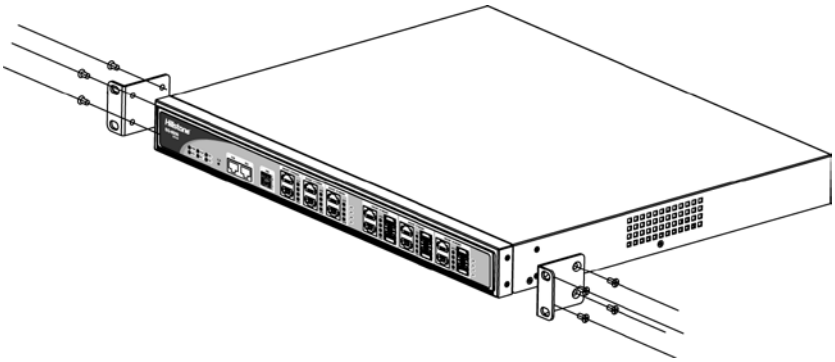
Step 1:Use rack-mounting ear to mark the positions of floating nuts on the front rack posts, as shown in Figure 3-2.

Figure 3-2: Installing the Floating Nuts



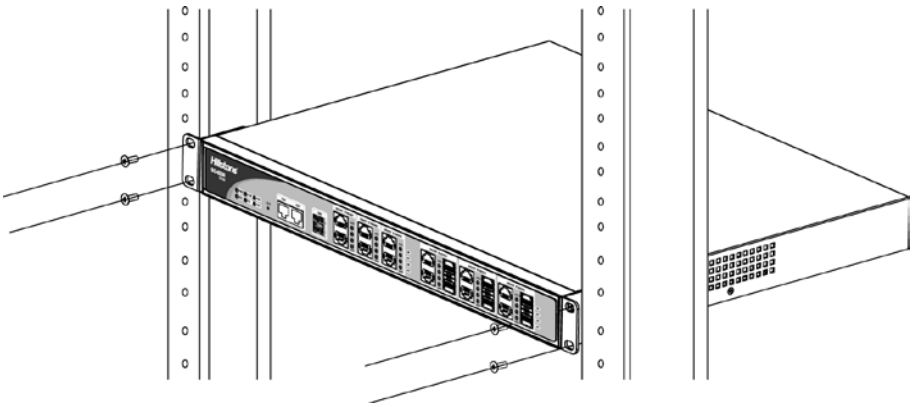
Step 2: Attach rack-mounting ears to the left and right side panels of the chassis respectively, and then fasten the rack-mounting ears with suitable screws, as shown in Figure 3-3.

Figure 3-3: Installing the Rack-mounting Ears (1U Chassis as example)



Step 3: Take out screws from the accessory box and fasten the rack-mounting ears of the chassis in the rack with the screws. Keep the center of the rack-mounting ear and the center of the rack hole horizontally even, as shown in Figure 3-4.

Figure 3-4: Installing the Device in a Rack (1U Chassis as example)



Cautions:

- The rack-mounting ears cannot bear weight. Make sure the chassis is supported by the platform under it when mounted into a rack.
- For better ventilation, there should be a clearance space between two equipments.
- If the rack accommodates only one device, put the device on the bottom.
- The floating nuts in the accessory box can only fit in the 9mm x 9 mm squared holes of standard racks and they can be used when no original rack nuts are available.

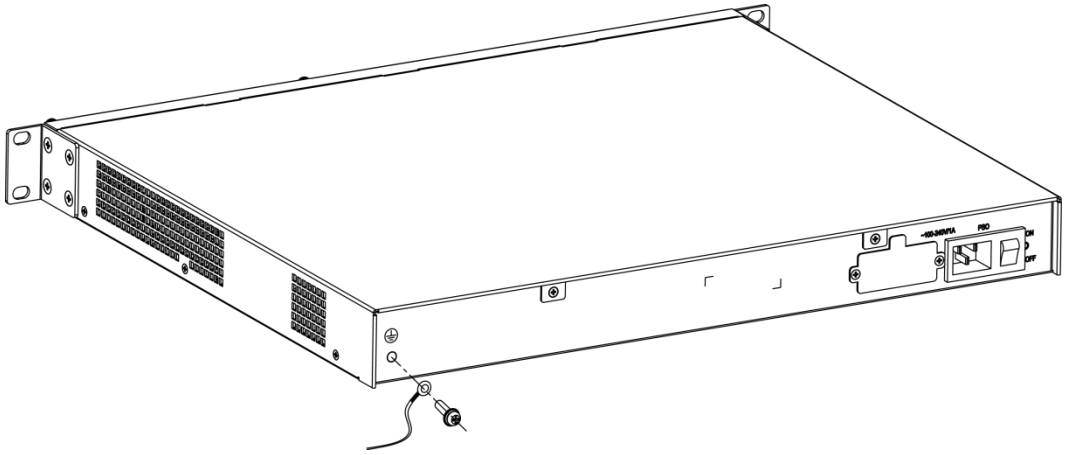
Connecting Cables

This section describes how to connect cables to the device, including connecting the ground wire, the console cable, the Ethernet cable and the power cable.

Connecting the Ground Wire

To meet safety requirements, you must correctly connect the grounding screw on the chassis to the earth ground by a grounding wire. The grounding resistance should be less than 5Ω.

Figure 3-5: Connecting the Ground Wire (1U Chassis as example)



Warning: The correct connection of the ground wire on the chassis is an essential safeguard against lightning shocks and interference. You must properly connect the ground wire when installing and using the device.

Connecting the Console Cable

Hillstone device provides an RS-232C asynchronous serial console (CON) port, through which you can configure the device. The console cable is an 8-core shielded cable, which has an RJ-45 connector that can be connected to the Console port of the device and a DB-9 (female) connector that can be connected to the serial port of a console terminal.

Perform the following steps to connect the device and the console terminal:

1. Select a console terminal. You may choose an ordinary PC or a standard ASCII terminal with an RS-232C serial port.
2. Connect the console cable. Connect the RJ-45 end of the cable to the Console port of the device, and then connect the DB-9 connector of the cable to the console terminal.

Connecting the Ethernet Cable

Hillstone products provide 1000Mbps electrical Ethernet ports, SFP ports, XFP ports and Ethernet Combo ports (Electrical port + Optical port). The electrical Ethernet port can be connected by a straight-through cable (also called standard cable) or a crossover cable. The SFP port should use a SFP optical module, which can be connected with crossover cable or straight-through cable, or use a SFP electric

module connected by a single-mode or multi-mode cable. The XFP port uses single-mode or multi-mode cables to access Ethernet.

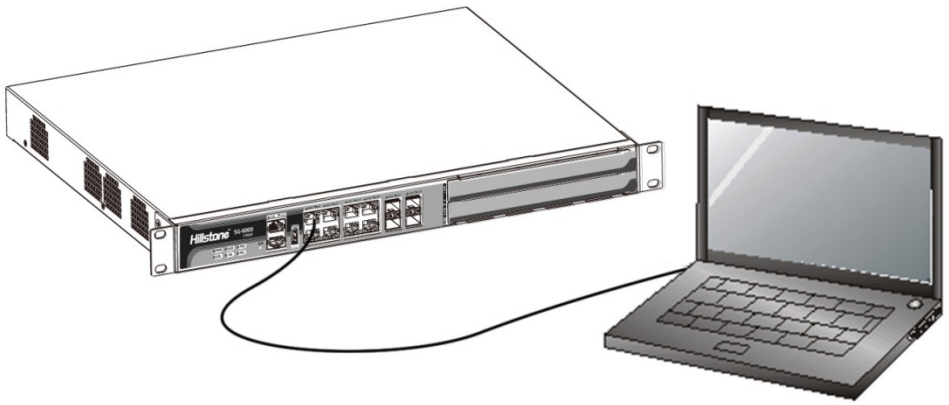
All SFP Port and XFP Port optical modules of Hillstone products use LC-type optical connector; therefore, you should connect the optical modules using optical fiber ended with LC-type connector.

Connecting the Ethernet Copper Cable

Follow the guidelines below when connecting cables to the ports:

- Be careful not to connect the Ethernet port to the wrong ports. Read the label above the port carefully.
- For electrical Ethernet connection, use crossover cable or straight-through cable.

Figure 3-6: Connecting the Ethernet Copper Cable



Connecting the Ethernet Fiber Cable

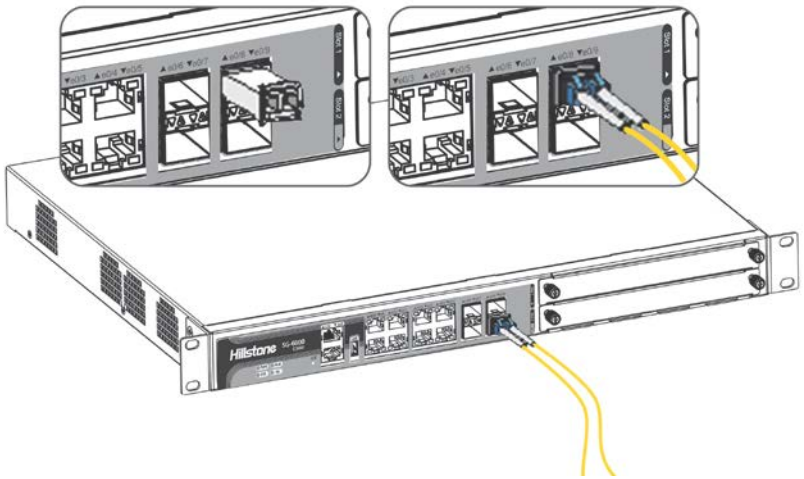
Follow the guidelines below when connecting cables to the ports:

- Be careful not to connect the Ethernet port to the wrong ports. Read the label above the port carefully.
- For SFP port connection, the optical module should be inserted into SFP port before installing the LC-type connector to the optical module; the copper SFP module should be connected by crossover cable or straight-through cable.
- For XFP ports, insert the XFP optical module into the XFP port before connecting the LC-type connector to the module.

Keep the followings in mind when connecting fiber cables:

- The curvature radius should be greater than 10cm. Avoid excessive bending of the cable.
- Ensure the Tx and Rx ends are connected correctly.
- Keep the connector of the optical cable clean.

Figure 3-7: Connecting the Ethernet Fiber Cable



Warning: Laser danger! To protect your eyes from radiation harm, do not stare into a cable connector connected to a laser generator.

Connecting a Power Adapter

To provide the power supply, connect the power adapter of the devices with the external AC power supply as follows:

1. Insert the DC output plug of the power adapter into the AC power interface at the back panel of the device.
2. Connect the power adapter to the external AC power supply.

Verifying Installation

After you complete the installation with all the above steps, you still need to verify the following items.

- All the cables are properly connected.
- The grounding wire of the device is correctly connected.
- The air vents on both side panel of the device are unblocked, and there is enough space around for heat dissipation.
- The expansion modules, power supply modules and fan tray are correctly installed (for some products).
- The power source meets the requirements of the device.
- If the device is rack-mounted, make sure the rack is stable enough. If the device is placed on a workbench, make sure the workbench is stable and clean.

Chapter 4 Boot and Configuration

Introduction

This chapter describes the initial system boot and basic configuration of Hillstone SG-6000 series, using a PC as the console terminal.

Establishing a Configuration Environment

Hillstone devices support both local and remote configuration. Administrators can use the following configuration methods.

- Console (CON) connection
- WebUI
- Telnet or SSH

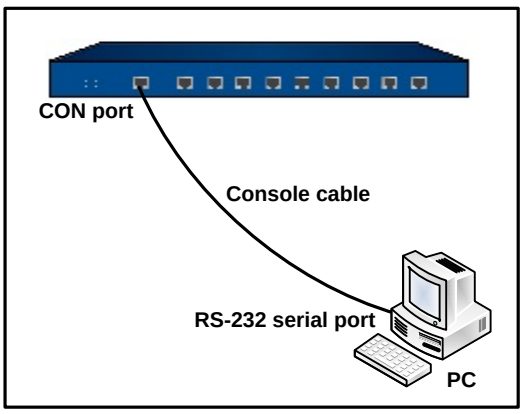
Console (CON) Connection

For initial system configuration, you have to establish a Console connection environment (connect the device to a configuration terminal through its Console port).

To connect the PC to the CON port of the device, take following steps:

1. Set up a local configuration environment. Connect the Console port to the serial port of a PC through a console cable, as shown in Figure 4-1:

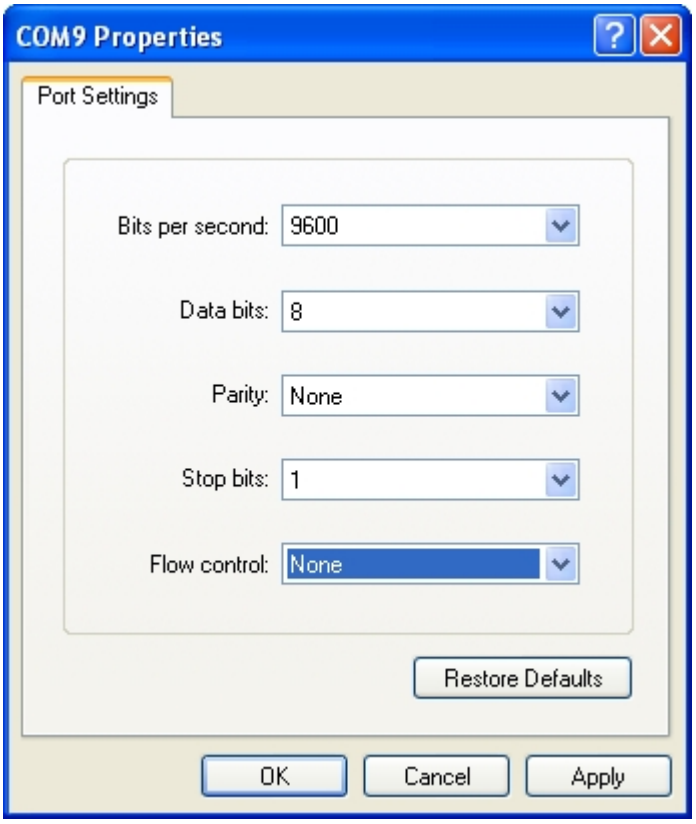
Figure 4-1: Console Port Configuration



2. Run the terminal emulation program on the PC (e.g. hyper terminal of Windows XP/Windows 2000) to set up a connection. Set the parameters of the

terminal session to 9600bps, 8 data bits, 1 stop bit, none parity, and none flow control, as shown in Figure 4-2:

Figure 4-2: Setting Parameters for the Terminal Session



3. Switch on the power supply, and the device performs self-test and initializes the configuration automatically. If the booting succeeds, the system will display the command line prompt “login”. Enter the default administrator name and password “hillstone” at the “login” and “password” prompts, press “Enter”. And now you are successfully logged in and accessing the CLI.
4. Enter commands to configure or view running status. Enter a question mark “?” to get help on commands whenever you want.

WebUI

The ethernet0/0 (e0/0) port has a default IP address of 192.168.1.1/24, and all the management functions of this port are enabled by default. Administrators can access the WebUI through e0/0.

To log in the device’s WebUI, take the following steps:

1. Set up the IP address of the management PC on the same subnet as **192.168.1.1/24**. Connect the management PC to the e0/0 port through an Ethernet cable.
2. Launch a Web browser of the management PC, enter the URL **http://192.168.1.1** in the address bar, and then press Enter.

3. Enter the default administrator name and password “hillstone” in both the **Login** and **Password** text boxes.
4. Click the **Login** button to enter WebUI main page. Then you can set other configurations to the device.

Tenet and SSH

You can also establish Telnet and SSH configuration environments. For more information, please see *StoneOS User Manual*.

Basic Configuration

Before you begin to use the device, you should be familiar with its features and your network deployment. Different device position in the network requires different topology design, working mode and policy configuration.

The basic configurations may include:

1. Create security zones, including the link layer (L2) and network layer (L3). Bind different interfaces to correct security zones respectively.
2. Assign IP addresses to interfaces.
3. Configure the management functions of the interfaces and create the security policy rules.
4. Assign proper network addresses and configure the NAT rules as needed.
5. Keep network connectivity by configuring routes.
6. Configure security policy rules between security zones.
7. Configure network parameters, such as DHCP and DNS agent, etc.

For more information, see *StoneOS User Manual*.

Chapter 5 Troubleshooting

Introduction

This chapter provides solutions to some common problems of Hillstone devices.

Losing the Administrator Password

If you lose the administrator password, please contact your local sales representative.

Troubleshooting Power System

Check the PWR LED on the front panel of the device. If the power supply is functioning normally, the PWR LED lights steadily in green color. If the LED is off, perform the following steps:

- Make sure the power supply cable is connected correctly.
- Ensure that the voltage of the power source conforms to the required voltage.

For the PWR LED information, see LED Indicators.

Troubleshooting the Configuration System

The Console configuration terminal shows system booting message when the device is powered on. If the configuration system has failed, it displays error information or nothing at all.

If the configuration terminal shows no information, perform the following steps:

- Make sure the power supply is correctly connected and powered on.
- Verify the Console cable is connected properly.
- Ensure the terminal configuration settings are correct.

If above steps reveal no error, the Console cable may be broken.

Copyright Information

Hillstone Networks Website www.hillstonenet.com posts the latest information.

FCC Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement:
This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: 1) this device may not cause interference and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

This class B digital apparatus complies with Canadian ICES-003
IC Radiation Exposure Statement: This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

Avis d'Industrie Canada:
Cet appareil est conforme à la norme CNR-210 des règlements d'Industrie Canada. Son fonctionnement est sujet aux deux conditions suivantes: 1) Cet appareil ne doit pas provoquer d'interférences et 2) Cet appareil doit accepter toutes les interférences, y compris celles pouvant entraîner son dysfonctionnement. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada Avis d'Industrie Canada sur l'exposition aux Rayonnements: Cet appareil est conforme aux limites d'exposition aux rayonnements d'Industrie Canada pour un environnement non contrôlé.

European notice

The equipment named above is confirmed to comply with the requirements setout in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (2004/108/EC), Low-voltage Directive (2006/95/EC) and R&TTE (1999/5/EC).

The equipment passed the test which was performed according to the following European standards:

•ETSI EN 301 489-1 V1.9.2 (2011-09)

•ETSI EN 301 489-17 V2.2.1 (2012-09)

•ETSI EN 300 328 V1.8.1 (2012-06)

•EN 301 893 V1.7.1 (2012-06)

•EN 62311: 2008

•EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011